

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A proximal insert for a coaxial catheter, comprising:
a body, having a proximal end and distal end, comprising;
a first passageway extending from a first opening to a second opening and configured to receive an inner lumen of said coaxial catheter;
a shoulder on an outer surface of said distal end, positioned proximate said first opening, wherein said shoulder is configured to abut a wall of an outer lumen of said coaxial catheter; and
a second passageway extending from said first passageway to a third opening.
2. The proximal insert according to claim 1, wherein said second passageway forms an angle with said first passageway in the range of approximately 15° to 60°.
3. The proximal insert according to claim 1, wherein said body is comprised of a material selected from the group consisting of plastic, stainless steel, titanium, nitinol and epoxy.
4. The proximal insert according to claim 1, wherein an outer surface distal of said shoulder is tapered.
5. The proximal insert according to claim 1, wherein said first passageway has a smaller diameter proximal to the point at which said second passageway connects thereto.

6. The proximal insert according to claim 1, wherein a diameter of said second passageway increases at a point adjacent said third opening.

7. The proximal insert according to claim 1, further comprising a second shoulder on an outer surface of said proximal end positioned proximate said third opening, wherein said second shoulder is configured to abut a wall of an extension tube.

8. A multi-lumen catheter, comprising:

a coaxial catheter comprising at least two lumens;

at least two extension tubes; and

an insert positioned between said catheter and said tubes, comprising:

a body, having a proximal end and distal end, comprising;

a first passageway extending from a first opening to a second opening and configured to receive an inner lumen of said coaxial catheter;

a shoulder on an outer surface of said distal end, positioned proximate said first opening, wherein said shoulder is configured to abut a wall of an outer lumen of said coaxial catheter; and

a second passageway extending from said first passageway to a third opening.

9. A multi-lumen catheter according to claim 8, wherein said inner lumen of said coaxial catheter is positioned within said first passageway of said body and said distal end of said body is positioned within said outer lumen of said coaxial catheter, said shoulder abutting a wall thereof.

10. A multi-lumen catheter according to claim 9, wherein a first of said extension leg tubes is connected to said inner lumen of said coaxial catheter and a second of said extension tubes is connected to said second opening of said body.

11. A multi-lumen catheter according to claim 10, further comprising a hub molded over a proximal end of said coaxial catheter and said body, wherein said body is completely encapsulated by said hub.

12. The process of attaching extension tubes to a coaxial catheter comprising the steps of:

providing an insert comprising:

a body, having a proximal end and distal end, comprising;

a first passageway extending from a first opening to a second opening and configured to receive an inner lumen of said coaxial catheter;

a shoulder on an outer surface of said distal end, positioned proximate said first opening, wherein said shoulder is configured to abut a wall of an outer lumen of said coaxial catheter; and

a second passageway extending from said first passageway to a third opening.

positioning said inner lumen of said coaxial catheter within said first passageway and positioning said distal end of said body within said outer lumen of said coaxial catheter, such that an outer wall of said outer lumen abuts said shoulder;

attaching a first of said extension tubes to said inner lumen of said coaxial catheter and attaching a second of said extension tubes to said third opening in said proximal end of said body; and

molding a hub over said body, a proximal end of said coaxial catheter and a distal end of said extension leg tubes, encapsulating each therein.

13. A multi-lumen catheter according to claim 12, wherein said attaching step further comprises the step of inserting a pin through said first of said extension tubes and into said inner lumen of said coaxial catheter prior to said molding step.

14. A multi-lumen catheter according to claim 12, wherein said attaching step further comprises the step of inserting a pin through said second of said extension tubes and into said third opening in said proximal end of said body prior to said molding step.